



# Repairing Black and Decker 9074 Screwdriver Battery

This is an older electric screwdriver. The battery part number 148412-00 is obsolete and no longer manufactured. The few that I did find are in excess of \$30. I decided to take a look and if possible build my own.

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## INTRODUCTION

Here I am rebuilding, actually more building, a battery of the electric screw driver. The original battery is no longer available so I decided to build my own in order to continue to use the screwdriver. The battery cell I am using are 4/5 SC (sub C) size. Meaning they are 4/5 the size of a C-Cell. They are 23 x 34 mm in size with a capacity of 2000mAh and 1.2 Volts.

## Step 1 — Repairing Black and Decker 9074 Screwdriver Battery



- Here is the original battery. Three cells surrounded by a soft plastic sheathing
- Cut the plastic (I used a utility knife) away.
- Now the three cells are clearly visible and the way they are connected in series. Meaning positive from one cell to negative on the next cell. Each cell separated by a rubber insulator

## Step 2



- Top to bottom on this image shows the insulator that is on the top portion of the cells. Next are the old three cells and bottom the new cells.
- The contacts on the old cells appear to be spot welded to make the connection.
- Separate the connections with either a pair of side cutters or a pair of scissor. This will allow you to remove the insulators.



### Step 3



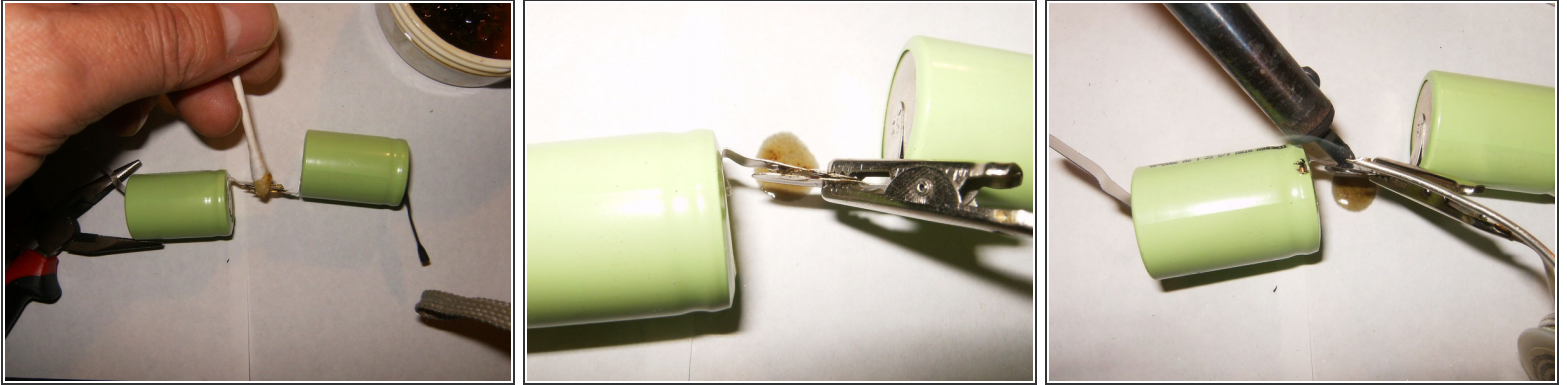
- Here all the cells are separated and the insulator removed
- Plenty of corrosion visible on each of the old cells.
- To prepare the new cells, the heatshrink insulation from the contacts need to be removed. I used a utility knife to remove that.

### Step 4



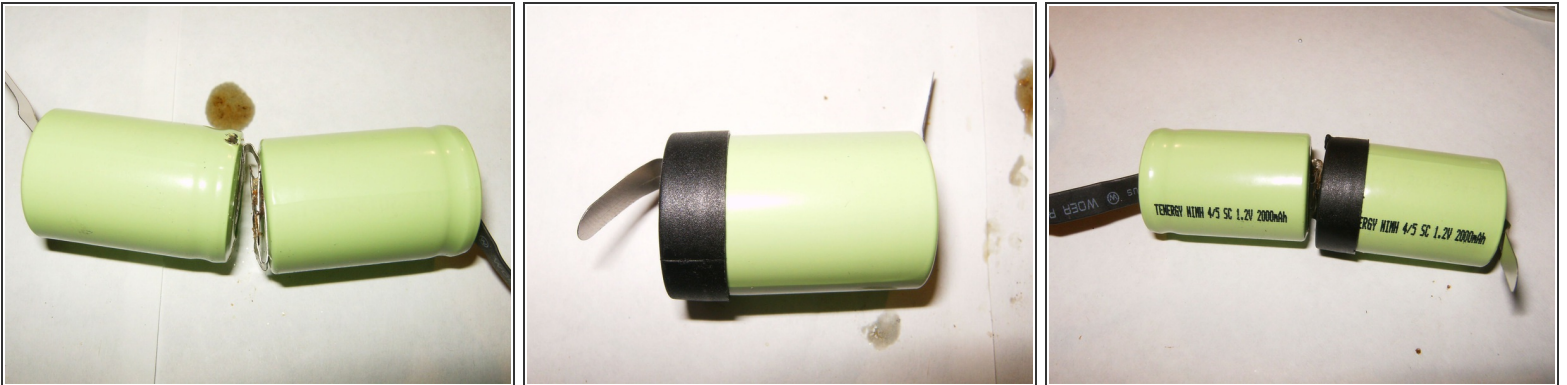
- Here is the first cell, insulation removed. Prepare all cells like that.
- Align the positive contact of the first cell with the negative contact of the second cell.
- Since the contacts will be soldered to each other, I did use some flux on the contacts prior to soldering.

## Step 5



- Apply the flux to the contacts, in my case I used a cotton swab.
- Once proper alignment is obtained, I use a alligator clip to hold them in position.
- Now solder the contacts together. I used a 30watt soldering iron with a blunt tip.

## Step 6



- Here is the first attempt. Luckily I noticed that I had forgotten to install the rubber insulator before going on to the next cell. Desolder the contacts to rectify this.
- Here is the next cell properly prepared.
- First two cells, separated by the insulator, soldered together.



## Step 7



- 2nd and 3rd cell prepared and being aligned.
- Applied flux and alligator clip to hold it in alignment.
- Solder the contacts together

## Step 8



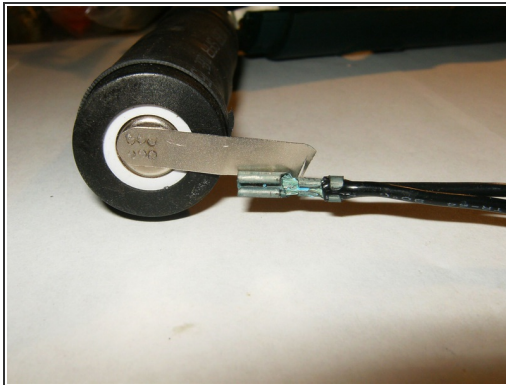
- All three cells soldered together, positive to negative end, creating a series connection.
- The original battery was wrapped in some soft plastic. I decided to use 1 1/4 inch heat shrink tubing. Black electric tape might work just as well, but I used what I had on hand.
- Heatshrink tubing placed over the cells

## Step 9



- I placed a clamp from end to end. This will prevent any exposure to hot parts, will allow movement of the battery and still maintain alignment.
- Here is the two speed heatgun I use for my projects.
- Simply apply constant heat to the tubing by moving the heatgun along the heatshrink tubing.

## Step 10



- Here is the battery with the heatshrink tubing attached.
- Obviously the contacts are being than the connector. (The corrosion visible on the connector was cleaned of during the installation)
- Trim the contacts with either a pair of sidecutters, or like in my case, use a pair of scissors.

## Step 11



- Once the contacts are trimmed to size, the battery is ready for installation into the screwdriver. There is a separate guide for that. Total cost for this was around \$9.00 for the cells.

To reassemble your device, follow these instructions in reverse order.

This document was last generated on 2017-10-25 02:04:30 AM.